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Constructing the consultation chair - balancing the four (E)-legs

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INTRODUCTION

Reflecting on the past 80 years in dentistry with 20:20 vision, we observe a number of changes in materials, techniques, medicaments, facilities, patient desires, and treatment options. What has not changed is the duty of the clinician to "promote and safeguard the health of all patients, using their knowledge and conscience to fulfil this duty" (Declaration of Helsinki).

This philosophy is considered so sacrosanct that it has been incorporated into The Declaration of Geneva of the World Medical Association which states "The health of my patient will be my first consideration," and the International Code of Medical Ethics which declares that "A physician shall act only in the patient's interest when providing medical care which might have the effect of weakening the physical and/or mental condition of the patient."

In practice, all healing carries the risk of harm, and almost every prophylactic, diagnostic, and therapeutic procedure involves certain risks and burdens. The onus is on the clinician to determine the most suitable and beneficial treatment option with the least risks for each patient. This is not always easy as there are a number of external factors that have to be considered.

The levels of training, skills and experience of dentists, their preferences, their ethical standards, the availability of materials and facilities, and the time and costs of treatment will all influence planning and decision making.

Of importance also to be taken into account are patient factors such as their level of education and understanding, family and peer pressure and their desire to conform to social media standards together with consideration of their actual needs versus their wishes and demands.

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ACRONYM

EBD: Evidence Based Dentistry

This paper will look at different elements that may impact on treatment planning and clinical decision-making, using the analogy of a four-legged chair with seat and backrest.

The dentist is the carpenter whose aim it is to construct a well-balanced, comfortable, aesthetically pleasing, durable, and functional chair. The seat of the chair is the treatment plan, the most central element in the entire process. The four legs are the pillars that support the chair on which the patient will be sitting.

The legs are represented by the four "E" concept, these being Education, Evidence Based Dentistry, Experience, and Ethics. Each "E" has to be present and carefully balanced with the other three legs if the chair is to be comfortable and remain stable under load. The last element is the back of the chair. This represents the laws governing the practice of dentistry. It is generally not needed for the chair to function, but goes a long way to providing additional comfort, support, and a solid backing for the patient to lean on if needed. The dentist should always be aware of its presence, and ensure the chair design is in harmony with the back.

1. Education

The bulk of clinical decision-making and subsequent treatment is based on the education that the dentist received as an undergraduate student. However, science and technology are not static and there are ongoing and progressive changes taking place in all spheres of technology, dentistry included. Dentists are morally obliged to keep abreast of the latest developments and

to adapt their practices accordingly. Attendance at CPD courses and "hands-on skills training" have been made a legal requirement in medicine and dentistry through-out the world. Sadly, many of these programmes have become largely money-making ventures for the presenters and point collecting activities for the participants, rather than valid learning experiences.

There is little control over or monitoring of, the material that is presented at these courses, other than informal participant feedback. At a recent congress (2019), the opening speaker began his presentation on facial aesthetics by referring to measurements of facial profiles taken from a 1960's study done on Scandinavian patients. He used these as guidelines for work carried out on a very racially diverse South African population. Not only was the information dated, but also the so-called "ideal norms" were subjective, and unsuited to the local population. Not a single person in the audience challenged him.

So while it is a legal requirement for dentists to attend ongoing training, it is also incumbent upon them to ensure that they acquire valid and reliable education. They also need to stay current by reading peer-reviewed scientific literature and by following technological developments to learn about new materials and products that have become available. Of course they then need to implement the changes and adapt their practice accordingly (when necessary or indicated and not just because a company representative has offered them free samples of a new product to try out!).

One should be suspicious of a dentist who is still using all the same techniques and materials that he/she was taught years ago in dental school. That said, there are of course a number of situations where traditional, conservative management is still the best option. The aim of any treatment should be preservation and retention of what is, rather than restoration of what has been lost.

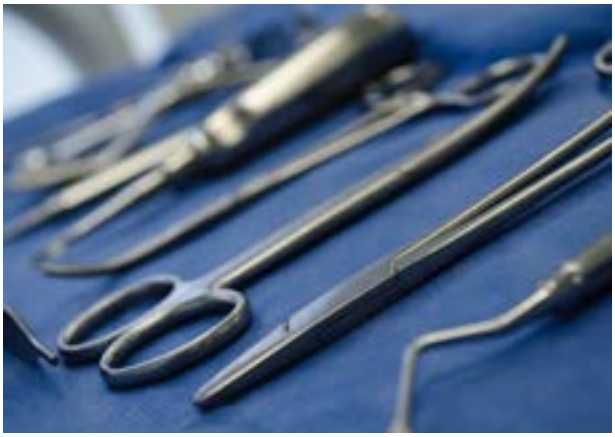
2. Experience

There is no substitute for experience. Every patient encounter is a learning exercise. Clinicians gain as much knowledge from their successes as from their failures, and both will influence how they approach the next similar patient situation.

Inevitably then, the "In my hands" approach to decision-making and treatment often becomes the norm for well-established practitioners. This stance has served them well for many years as evidenced by the number of successful cases they have treated. However, it also has the danger of leading to complacency, blinding them to the possibility that there may be newer and better ways of doing things. The wise dentist will know when it is time to consider abandoning one approach for another.

Conversely there may also be clinicians with **little** experience but a **lot** of zeal. They eagerly embark on testing out new products, instruments and free samples on their patients, and in effect turn them into walking human experiments. While their desire to remain current or to aid progress is admirable, and it is known that much of medical progress is based on research involving experimentation on human subjects, the health and well-being of patients should never be put in jeopardy in the process.

The dentists may justify their actions if they have a truly strong conviction that they will be helping to improve prophylactic, diagnostic, or therapeutic procedures. Nobody can argue that even the best-proven medical science must continuously be challenged through research for optimal effectiveness, efficiency, accessibility, and quality, but, the well-being of patients should always take precedence over a clinician's interests, ambitions, (bank balances) and objectives, and of the needs of science and society.



3. Evidence Based Dentistry (EBD)

All clinical practice should be based on methods, materials, and procedures that have undergone extensive laboratory and / or clinical trials. The research must be based on good science, well controlled with suitably sized randomized samples, must have undergone rigorous scientific review and be evidence based. It may be difficult for practitioners focused on clinical commitment to judge the value of published research.

In 1992 Guyatt's proposal that there should be a formal means of evaluating the trustworthiness of research[1] led to the development of "The Evidence Ladder/Pyramid". This grades the quality of research from highest to lowest as follows: high quality systematic reviews, large randomized trials with clear results; smaller randomized trials with uncertain results; non-randomized trials with contemporary controls; non-randomized trials with historical controls; cohort studies; case-controlled studies; dramatic results from uncontrolled studies; case series and lastly are reports or expert opinions based on clinical experience.[2]

Thus whenever clinicians are presented with a new material, device or technique, the onus is on them to examine all available evidence before blindly accepting and using it. In the absence of evidence or only company sponsored research, the claims must be viewed with circumspection if not suspicion, and it may be best to avoid the offerings until more credible results become available.

While EDB is the universally accepted "gold standard" in research, it has become almost impossible to secure ethical approval for clinical studies involving patients. This has led to the more recent trend of journals accepting case reports, and, to a greater extent, case series, for publication. It is a well-known fact that many groundbreaking discoveries have come about by chance. This makes it crucial for dentists to keep comprehensive, accurate, and clear patient records and to either document cases of interest, or at least to disseminate this information amongst their colleagues - especially if they notice a trend developing.

NB – this is **not** the same as, or an excuse to permit "experimenting" on patients, and leads to the fourth leg – that of ethical conduct.

4. Ethics

There are a myriad of papers, books, guidelines, and opinion pieces related to ethical clinical practice. Most of them revolve around the four key elements proposed by Beauchamp and Childress in 2001.[3] These are 1. Patient autonomy (including understanding, education and consent), 2. Beneficence, 3. Non-maleficience and 4. Justice.

Essentially, ethics in dentistry is simply a matter of treating each patient in the same manner as you would like to be treated yourself, striving to maintain and promote health, choosing the treatment option that offers the most benefits and the least amount of risk or discomfort, and refraining from willfully inflicting harm or damage. The latter is not restricted to physical harm, but also includes the burdens of emotional stress, wasted time, financial costs, and having to endure pain and suffering. Thus we believe that ethical considerations should be the guiding factors when drawing up any set of treatment options and finally deciding on the most suitable treatment plan. And so we move up from the legs to address issues associated with the seat of the chair.

5. The seat

The seat refers to the treatment options, plan, and execution. It forms the foundation for an optimal dentition that ideally the patient will be using for years to come and as such needs to be sturdy, comfortable, aesthetically pleasing, durable and suited to the overall chair design. Not all seats can or will be made out of the same material or in the same manner, and may function slightly differently from each other.

Most seats are designed to make optimal use of the materials that the dentist had access to when the patient first arrived. This may be influenced by factors such as the desires and demands of the patient, the amount of time he/she is willing to contribute as well as the funds available for purchasing additional "building supplies".

Some chairs may have to be made with compromised seats, especially if the dentist is presented with limited or poor quality material to work with initially. It may be possible to restore the seat with the limited supply of materials available, but the patient must be cautioned to use it with care. Some seats may be built as temporary measures until such time as the patients can afford more permanent materials, or used as diagnostic aids to evaluate the amount of load that they will need to carry. More complex seats will require regular maintenance, adjustments, professional cleaning, and repair. Finally, regardless of the design and type, all seats need daily home care by the patients. No chair should ever be delivered without the dentist taking the time to explain this process fully and clearly.

Some final design thoughts and guidelines – keep it simple; never discard or destroy any material that the patient arrived with, unless it is undoubtedly beyond saving; choose the most conservative design first, this allows one to opt for a more complex restoration at a later date; if in doubt about how to proceed, then don't make major or irreversible changes to the existing chair; never be tempted to choose a design that is based on personal interests, the desire to bolster sales of a product, or to swell your own pockets; at times, the best choice may be to do nothing and leave the existing chair to function as it has done; after all the patient came in using their current seat and it would be foolish to destroy that unless you are certain you can build a better one. You also have a right to refuse taking on a project when the patient has unrealistic demands. Perhaps the final guiding principle comes from 19th-century English surgeon Thomas Inman who said "Practice two things in your dealings with disease: either help or do not harm the patient".[4]

6. The backrest

At times it becomes necessary to sit back and reflect upon the success and comfort of the chair. In such cases the backrest becomes a type of concinnity, a skillful fitting together of parts, so that it offers benefits to both or either of the two parties, the patient and dentist. When the dentist has forgotten to provide a proper backrest in the form of legal and ethical requirements he or she may "fall off" the chair.

While all chairs have backrests, they are not always used, and many competent and experienced clinicians don't pay much attention to this aspect when planning and working on the other components. However, the patient's comfort will be vastly improved if they know

there is this extra support on which to lean should the need arise. That support/the backrest is the Law. It is generally only focused upon in situations where the patient is unhappy with other elements of the craftsmanship.

They may complain that the seat is uncomfortable or breaks frequently, that the legs are unstable, that they don't like the design, colour or materials used to make the chair, that their family feel the chair doesn't suit them, that they were not told about the different choices of design initially, that the dentist destroyed some of the seat material that could have been saved and re-used, that the chair looks and functions worse than when they brought it in for repair, or most commonly, when they believe they have been charged too much for the chair.

Generally, when a dispute arises, independent expert witnesses will assess the case. They will be experienced colleagues of good repute. It is never easy to criticize another dentist's work. There are often many sides to each complaint, and very often a number of extenuating circumstances that impacted on the treatment outcome. Their judgement is usually made using the Reasonable Man Rule – i.e. what would a reasonable clinician, under the same circumstances, have done in a similar situation for their patient? The ruling will depend on whether the witness believes the dentist acted in a reasonable manner.

However, there is one major lapse in this approach. It usually involves debating the technical and legal aspects of the treatment and its outcomes. There is seldom consideration of all four legs of the chair. Has the dentist remained current in Education or were dated materials and procedures used? Did the treatment conform to that advocated by the best practice approach of EBD? Was the dentist Experienced enough to undertake the work? And finally did the dentist act Ethically? The latter may have a strong influence on whether the verdict is guilty or innocent. For example: the witness needs to differentiate between a cautious "wait and see" approach and supervised neglect; or between an adverse event and gross negligence. A further complication is that the way they view these issues may be subject to their own practice philosophy and thus be subjective and open to bias.

Other ethical issues which should be debated revolve around frequency, magnitude, and intent. Once-off events where the intention was good may be condoned, however repeat offenders with malicious intentions need to be admonished.

So, in conclusion, perhaps we in the dental profession need to re-look at how we go about constructing our consultation chairs and assemble our treatment planning and execution according to our own adapted version of the legal rule. Ours can be called "The Reasonable Ethical Man Rule"

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